

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
19 May 2005 (19.05.2005)

PCT

(10) International Publication Number  
**WO 2005/044304 A3**

(51) International Patent Classification<sup>7</sup>: **A61K 39/395**,  
A61P 35/02 // C07K 16/28

(74) Agent: **ALEXANDER, Lisa, E.**; Chiron Corporation, Intellectual Property Department, P.O. Box 8097, Emeryville, CA 94662-8097 (US).

(21) International Application Number:  
PCT/US2004/036954

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date:  
4 November 2004 (04.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/517,337 4 November 2003 (04.11.2003) US  
60/525,579 26 November 2003 (26.11.2003) US  
60/565,710 27 April 2004 (27.04.2004) US  
60/611,794 21 September 2004 (21.09.2004) US

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **CHIRON CORPORATION** [US/US]; 4560 Horton Street, Emeryville, CA 94608-2916 (US).

**Published:**

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **LONG, Li** [CA/US]; Chiron Corporation, P.O. Box 8097, Emeryville, CA 94662-8097 (US). **LUQMAN, Mohammad** [US/US]; Chiron Corporation, P.O. Box 8097, Emeryville, CA 94662-8097 (US). **YABANNAVAR, Asha** [US/US]; Chiron Corporation, P.O. Box 8097, Emeryville, CA 94662-8097 (US). **ZAROR, Isabel** [US/US]; Chiron Corporation, P.O. Box 8097, Emeryville, CA 94662-8097 (US). **AUKERMAN, Lea** [US/US]; Chiron Corporation, P.O. Box 8097, Emeryville, CA 94662-8097 (US).

(88) Date of publication of the international search report:  
25 August 2005

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: **USE OF ANTAGONIST ANTI-CD40 ANTIBODIES FOR TREATMENT OF CHRONIC LYMPHOCYTIC LEUKEMIA**

(57) Abstract: Methods of therapy for treating a subject for chronic lymphocytic leukemia are provided. The methods comprise administering a therapeutically effective amount of an antagonist anti-CD40 antibody or antigen-binding fragment thereof to a patient in need thereof. The antagonist anti-CD40 antibody or antigen-binding fragment thereof is free of significant agonist activity, but exhibits antagonist activity when the antibody binds a CD40 antigen on a human CD40-expressing cell. Antagonist activity of the anti-CD40 antibody or antigen-binding fragment thereof beneficially inhibits proliferation and/or differentiation of human CD40-expressing chronic lymphocytic leukemia cells.

WO 2005/044304 A3